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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/971,997	10/05/2001	Mark V. Goloby	069620.0101	4147

7590 06/04/2003  
Michael Locklar  
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910 Louisiana Street  
Houston, TX 77002-4995

EXAMINER

JACKSON, ANDRE K

ART UNIT	PAPER NUMBER
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2856

DATE MAILED: 06/04/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/971,997

Applicant(s)

GOLOBY, MARK V.

Examiner

Andre' K. Jackson

Art Unit

2856

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 25 March 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 8,9,13,15,16,23,24,28,30,31 and 34-38 is/are pending in the application.

4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.

- 5) ☒ Claim(s) 34-38 is/are allowed.

- 6) ☒ Claim(s) 8,9,13,15,16,23,24,28,30 and 31 is/are rejected.

- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.

- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).  
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_ 6) ☐ Other: \_\_\_\_\_

## DETAILED ACTION

### ***Claim Rejections - 35 USC § 103***

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 8 and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chen in view of Adney et al.

Regarding claims 8 and 9, Chen discloses an "Automated chemical drain system" which has a metering reservoir (tank 42) with a volume an inlet port, an outlet port a top and a bottom (Figure 3), a liquid level sensor (52-56) located so as to able to sense a fluid level within the metering reservoir and connected to an upper limit switch and a lower limit switch, the upper limit switch having an upper set point and the lower limit switch having a lower set point (52-56) and an electronics module (50) in electrical communication with the upper limit switch and the lower limit switch and in electrical communication with the control valve (Figure 3). A control valve capable of allowing or stopping liquid from flowing into the metering reservoir is not shown. However, it is within the purview of the skilled artisan to include this valve since this would keep the liquid from

overflowing through the inlet pipe (58) once the collection tank is filled and valve (48) is closed. Chen does not disclose having an error tolerance of less than 1 and 0.1%. However, Adney et al. disclose a "Mass flowmeter apparatus" which discloses a minimum error of 0.05%. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify Chen to include an error tolerance of less than 1 and 0.1% as taught by Adney et al. since this modification would improve the over all flow rate of the apparatus.

3. Claims 13, 15 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chen in view of Adney et al. as applied to claim 8 above, and further in view of Ayers.

Regarding claim 13, neither Chen nor Adney et al. disclose a metering reservoir that has a breather vent and the breather vent being located on the top of the metering reservoir. However, Ayers discloses a "Multiple phase chemical injection system" which discloses where the metering reservoir has a breather vent and the breather vent being located on the top of the metering reservoir (Column 1). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify Chen to include a metering reservoir that has a breather vent and the breather vent being located on the top of the metering reservoir as taught by Ayres since this modification would prevent a vacuum for forming in the tank when the pump draws chemicals from the tank.

Regarding claim 15, Chen does not disclose a power supply. However, it is inherent that there is some type of power supplied to the electronics module in order for the system to be automated as stated by Chen.

Regarding claim 16, neither Chen nor Adney et al. disclose where a pump is capable of removing fluid from the metering reservoir through the outlet port. However, Ayres discloses a pump that is capable of removing fluid from the metering reservoir through the outlet port (Column 1, lines 61-64). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify Chen to include a pump that is capable of removing fluid from the metering reservoir as taught by Ayres since this modification would allow the liquid to drain at a speed determined by the user.

4. Claims 23 and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chen in view of Ayres, and Pyzik and further in view of Adney et al.

Regarding claims 23 and 24, Chen discloses a metering reservoir (tank 42, Figure 2), a control valve (48, Figure 2), a liquid level sensor (52-56, Figure 2) and an electronics module (50, Figure 2). A tank outlet conduit capable of conducting fluid to the reservoir inlet port and a paddlewheel having a central pivot point and paddles, with the paddles radiating from a the central pivot point, the paddles capable of rotating

about the central pivot point the paddle wheel located within the tank outlet conduit and capable of rotating in response to fluid flow through the tank outlet conduit are not disclosed. However, Ayres discloses a tank outlet conduit capable of conducting fluid to the reservoir inlet port (28, Figure 2). Therefore, it would have been obvious to one of ordinary skill in the art to modify Chen to include a tank outlet conduit capable of conducting fluid to the reservoir inlet port as taught by Ayres since this is one type of common configuration for chemical injection. Pyzik discloses a "Paddlewheel flow meter assembly" which has a paddlewheel (32) having a central pivot point and paddles, with the paddles radiating from a the central pivot point, the paddles capable of rotating about the central pivot point the paddle. Therefore, to modify Chen to include a paddlewheel having a central pivot point and paddles, with the paddles radiating from a the central pivot point, the paddles capable of rotating about the central pivot point the paddle wheel, as taught by Pyzik, and located within the tank outlet conduit and capable of rotating in response to fluid flow through the tank outlet conduit would have been clearly within the purview of one of ordinary skill in the art at the time of the invention since the skilled artisan would use the paddlewheels to measure the flow of fluid flowing from one tank to another and to make certain the flow is not too fast or too slow. Chen does not disclose having an error tolerance of less than 1 and 0.1%. However, Adney et al. disclose a "Mass flowmeter

apparatus" which discloses a minimum error of 0.05%. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify Chen to include an error tolerance of less than 1 and 0.1% as taught by Adney et al. since this modification would improve the over all flow rate of the apparatus.

Regarding claim 28, Chen does not disclose a metering reservoir that has a breather vent and the breather vent being located on the top of the metering reservoir. However, Ayers discloses where the metering reservoir has a breather vent and the breather vent being located on the top of the metering reservoir (Column 1). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify Chen to include a metering reservoir that has a breather vent and the breather vent being located on the top of the metering reservoir as taught by Ayres since this modification would prevent a vacuum for forming in the tank when the pump draws chemicals from the tank.

Regarding claim 30, Chen does not disclose a power supply. However, it is inherent that there is some type of power supplied to the electronics module in order for the system to be automated as stated by Chen.

Regarding claim 31, Chen does not disclose where a pump is capable of removing fluid from the metering reservoir through the outlet port. However, Ayers discloses a pump that is capable of removing fluid

from the metering reservoir through the outlet port (Column 1, lines 61-64). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify Chen to include a pump that is capable of removing fluid from the metering reservoir as taught by Ayres since this modification would allow the liquid to drain at a speed determined by the user.

5. Claims 34-38 are allowed.
6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Andre' K. Jackson whose telephone number is (703) 305-1522. The examiner can normally be reached on Mon.-Thurs. 7AM-4PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hezron Williams can be reached on (703) 305-4705. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 308-7722 for regular communications and (703) 308-7722 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-1782.



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A.J.

May 27, 2003

HELEN KWOK  
PRIMARY EXAMINER  
*Helen Kwok*